

AFFECTED ENVIRONMENT

This section provides a description of the preserve and identifies resources potentially affected by the proposed action. Additional information on resources of Tallgrass Prairie National Preserve can be found in the 2000 GMP.

LOCATION AND GENERAL DESCRIPTION OF TALLGRASS PRAIRIE NATIONAL PRESERVE

Tallgrass Prairie National Preserve is located within the Flint Hills region of east-central Kansas. The preserve is in Chase County, north of Strong City, and 3 miles north of Cottonwood Falls. Kansas SH 177 runs north/south through the preserve and provides access to the historic Spring Hill / Z Bar Ranch Headquarters and many other features associated with the preserve. The preserve consists of 10,984 acres, the majority of which is owned by The Nature Conservancy.

OVERVIEW

This section provides a general review of each resource within the preserve. A more detailed discussion for each parcel proposed for construction is described under the headings “Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area” and “Proposed Maintenance Parcel and Visitor Information and Orientation Area.” Because of the proposed GMP revision, the parcel at the intersection of U.S. 50 and SH 177 is discussed in the “2000 GMP Proposed Addition to Flint Hills Ranching Legacy Area” section.

The preferred/selected alternative in the 2000 GMP designated 82 acres within the preserve as a visitor information and orientation area where development of the primary visitor information and orientation area would take place near Strong City, close to the junction of SH 177 and U.S. 50.

The visitor center / administrative parcel and visitor information and orientation area proposed under this GMP revision would be located on a 7- acre parcel south of the historic Spring Hill / Z Bar Ranch Headquarters, on the west side of Kansas SH 177.

The proposed maintenance parcel and visitor information and orientation area would be located on 6.0 acres of land in the southern portion of the preserve, due east of the Strong City sewage lagoons.

The parcel located north and east of the intersection of Kansas SH 177 and U.S. 50, designated as a visitor information and orientation area in the 2000 GMP and proposed to be redesignated as the Flint Hills ranching legacy area, contains approximately 81 acres.

HISTORIC STRUCTURES

The National Historic Preservation Act and NEPA require consideration of impacts on historic structures and buildings listed in or eligible for listing on the NRHP.

The preserve contains over 60 recorded structures and features. More historic structures are expected to be documented as additional survey work is accomplished. The known structures represent the evolution of farming, ranching, and rural lifeways from the mid- 19th to mid-20th centuries. Of the 60 known structures, 38 were documented as part of the List of Classified Structures survey in 1997. The majority of the 38 structures are concentrated at the historic Spring Hill / Z Bar Ranch Headquarters. These structures, as well as the Lower Fox Creek School and 36 miles of stone fence, are built of local limestone.

The historic Spring Hill / Z Bar Ranch Headquarters complex was built in 1881 (figure 6) by ranch founder, Stephen Jones, on a bluff overlooking the Fox Creek valley, north of Strong City, Kansas. The complex includes the following structures: three- story (11- room) ranch house, three- story barn, springhouse / curing room, privy, icehouse, and poultry house / scratch house. In April 1971, the historic Spring Hill / Z Bar Ranch house was listed on the NRHP and was later incorporated into a larger national historic landmark (discussed below).

Proposed Visitor Center / Administrative Parcel and Visitor Information and Orientation Area

Historic features that may or may not be associated with ranching located near or in the vicinity of the parcel include concave spaces, fencing, and large earthen trench silos. These features may occur in the parcel and could be associated with ranching and the period of significance (Bahr Vermeer Haecker Architects 2004).

Proposed Maintenance Parcel and Visitor Information and Orientation Area

Historic features associated with this parcel include a stone fence and a historic metal pole barn dated to post- 1938. Other features that may or may not be associated with ranching located near the parcel include former habitation sites, foundations, and stone fences (Bahr Vermeer Haecker Architects 2004).

Proposed Flint Hill Ranching Legacy Area Revision

Historical features in the landscape include fencing; remnant spur grades; stockyard pens, corrals, and associated features; roads and road traces; quarry sites; and landscape features (Bahr Vermeer Haecker Architects 2004). This area also includes the Bottomland Trail.

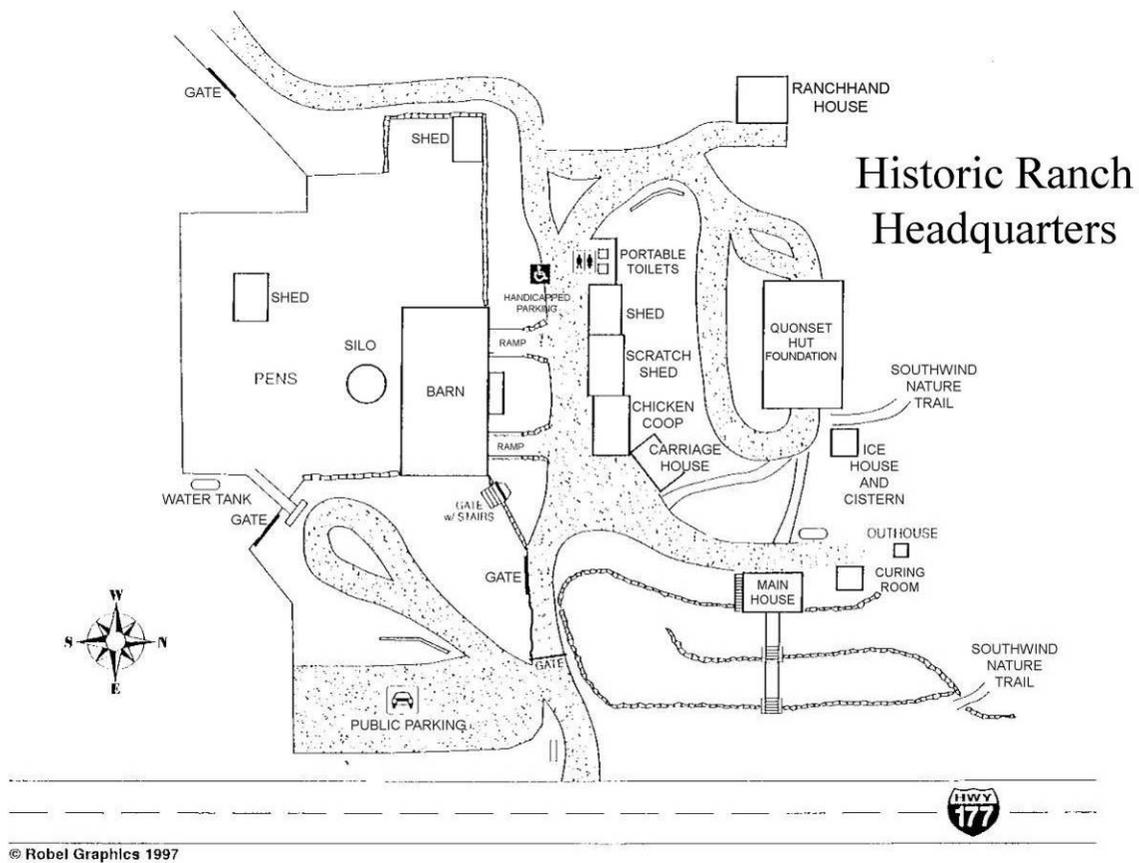


FIGURE 6. SPRING HILL / Z BAR RANCH HEADQUARTERS

ARCHEOLOGY

Relatively little is known about archeological resources in and around Tallgrass Prairie National Preserve. Field investigations conducted in 1998 addressed the small number of known, but mostly unrecorded sites, but these addressed only about 150 acres (less than 2% of the preserve). However, information gleaned from archeological records elsewhere in Morris and Chase counties suggests that a substantial number of archeological sites will eventually be recorded in the preserve. Documented archeological materials reflect 12,000 years of American Indian occupation and use of lands around the preserve. Paleo-Indian and Archaic remains are relatively uncommon. Later prehistoric occupations dating from roughly AD 1 to AD 1500 are much better represented (Jones 1999).

Prehistoric archeological site types expected to occur within the preserve include chert quarries and workshops, habitations/campsites, tipi rings, rock alignments, cairns, burial mounds, and other task-specific sites. It is also likely that the preserve will contain a small number of historic farmsteads or homesteads and a larger number of isolated farm- or ranch-related features (Jones 1999).

Proposed Visitor Center / Administrative Parcel and Visitor Information and Orientation Area

The potential for archeological resources within this parcel was evaluated using a formal file search from the Kansas State Historical Society in October of 2005, and a brief archeological investigation in November of 2005. The file search indicated that no previously recorded archeological sites are in the immediate vicinity of the parcel. The nearest recorded site is the historic Spring Hill / Z Bar Ranch Headquarters located north of the parcel.

The parcel was briefly evaluated for archeological and structural remains by pedestrian survey. Historic photographs indicated a simple, single- story structure with an outbuilding located within the parcel. The location of the structures were investigated and clear evidence of the location of the buildings was not observed; however, there is the potential for subsurface features and artifacts. The site has not been formally evaluated for listing on the NRHP.

Proposed Maintenance Parcel and Visitor Information and Orientation Area

The potential for archeological resources within this parcel was evaluated using methods of a formal file search from the Kansas State Historical Society in October 2005, and a brief archeological investigation in November 2005. The file search indicated that no previously recorded archeological sites are in the immediate vicinity of the parcel.

Historic features in the area include a low stone fence along the east boundary and a barn located in the southern portion of the parcel. The stone fence likely dates to the late 19th century and the barn post- dates 1938, according to aerial photographs of the area. The barn has not been evaluated for NRHP eligibility (Jones 2005).

Shovel testing was used as a method to locate subsurface archeological material and to determine possible ground disturbance from construction of the sewage lagoons. The shovel tests were dug at 65- foot (20 meter) intervals to an approximate depth of 15 inches (40 centimeters [cm]) below the ground surface, which did not reach into lower soil horizons. The shovel tests were dug along a north- trending transect and along the stone fence alignment. No archeological materials were identified in the area of the parcel. Preliminary indications from shovel testing conclude that construction disturbance did not occur; however, past flooding of Fox Creek may have eroded away any prehistoric or historic occupations (Jones 2005).

Proposed Flint Hills Ranching Legacy Area Revision

Kansas State Historical Society records indicate that there are two recorded archeological sites in the general vicinity of this parcel. The first site (14CS105) is a prehistoric lithic scatter in a cultivated field adjacent to Fox Creek, located about 546 yards (500 meters) east of and beyond the limits of one of the two proposed parcels. Shovel testing near this site failed to discover cultural deposits and it was concluded that any evidence of prehistoric occupation has been destroyed by later agricultural practices (Jones 2002). The second recorded site (14CS113) is a

multiple component historic site located about 164 yards (150 meters) east of the parcel. It contains several late 19th and 20th century features: an exposure of quarried limestone; a segment of an abandoned railroad spur; the remains of a demolished structure; a line of concrete feed bunks; and the remains of cattle pens, corrals, and loading ramps associated with the railroad spur. (This is the same historic corral area discussed in the foregoing historic structures and cultural landscapes section.)

CULTURAL LANDSCAPES

Tallgrass Prairie National Preserve was listed as a national historic landmark in 1997 for its association with the cattleman's empire of the late 19th century and the transition from open range to the enclosed holdings of the large cattle companies in the 1880s. The period of national significance extends from 1878 through 1904. Eight buildings, two sites, and four structures have been identified as contributing to the property's national significance (NPS 2000a). In 2002, approximately 32 acres, including the historic Spring Hill / Z Bar Ranch Headquarters complex and school, were donated to the National Park Service by the National Park Trust.

The National Park Service initiated a cultural landscape inventory of the preserve in 1998. According to the NPS *Cultural Resources Management Guideline* (Director's Order – 28) a cultural landscape is

... a reflection of human adaptation and use of natural resources and is often expressed in the way the land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined by physical materials such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

Thus, cultural landscapes are the result of the long interaction between people and the land—the influence of human beliefs and actions over time upon the natural landscape. Shaped through time by historical land- use and management practices, as well as politics and property laws, levels of technology, and economic conditions, a cultural landscape provides a living record of an area's past, a visual chronicle of its history. The dynamic nature of modern human life, however, contributes to the continual reshaping of cultural landscapes, making them a good source of information about specific times and places, but at the same time rendering their long- term preservation a challenge.

A cultural landscape report has been prepared for the preserve. It was completed in 2004 and includes a history of the preserve and an analysis of its historical integrity and significance. The cultural landscape report identifies a number of character- defining features for the national historic landmark. Some of these are listed in table 5.

TABLE 5. CHARACTER-DEFINING FEATURES OF THE TALLGRASS PRAIRIE NATIONAL PRESERVE CULTURAL LANDSCAPE

General	
<ul style="list-style-type: none"> ▪ The historic alignment of the railroad spur connecting the cattle yard to the Atchison, Topeka & Santa Fe Railroad 	<ul style="list-style-type: none"> ▪ Prairie views, both into and out of the preserve
Historic Spring Hill / Z Bar Ranch Headquarters	
<ul style="list-style-type: none"> ▪ Cluster arrangement at the ranch headquarters ▪ Barn ▪ Carriage house ▪ Privy ▪ Stone corral complex ▪ Nineteenth-century pond site ▪ Ranch fences ▪ Walnut, elm, and oak trees 	<ul style="list-style-type: none"> ▪ Nineteenth-century residence ▪ Shed / chicken house ▪ Spring house ▪ Ice house / cistern ▪ South corral ▪ Terrace system adjacent to residence ▪ Curvilinear cedar plantation west of residence ▪ Views to Fox Creek, Flint Hills, & Lower Fox Creek School
Lower Fox Creek School	
<ul style="list-style-type: none"> ▪ School house 	<ul style="list-style-type: none"> ▪ Remnant stone steps east of school
Deer Park Environs	
<ul style="list-style-type: none"> ▪ Stone poultry house ▪ Historic road alignments 	<ul style="list-style-type: none"> ▪ Arched stone bridge ▪ St. Anthony Cemetery
Former Stockyard Site and Rail Spur	
<ul style="list-style-type: none"> ▪ Stockyard archeological site 	<ul style="list-style-type: none"> ▪ Historic road and rail alignments

The cultural landscape of the preserve has been evaluated based on the draft NRHP nomination and cultural landscape report research and analysis as significant nationally and locally under National Historic Preservation Act criterion A through D. The preserve landscape is nationally significant under criterion A for its relationship to the “broad patterns” of history, and more specifically in the area of agriculture. Not only is it nationally significant, but also locally significant under criterion B for its association with Stephen Jones and Barney Lantry. Both men were regionally important businessmen who facilitated in the transformation of the economy of Chase County, Kansas.

The architecture of the historic Spring Hill / Z Bar Ranch Headquarters is nationally significant under criterion C. Many other cultural concentrations located throughout the preserve contain examples of distinctive architectural characteristics and landscape features that may be locally significant as well.

The preserve is designated a national historic landmark and is locally significant under criterion D for the ability of its archeological resources to yield important information for the national historic landmark period of significance among other historic periods and including prehistoric periods.

The character- defining patterns of spatial organization and views associated with the local period of significance, in addition to national historic landmark features are as follows:

- pastures:
 - West Branch Pasture
 - Gas House Pasture
 - Windmill Pasture
 - Red House Pasture
 - Crusher Hill Pasture
 - West Traps Pasture
 - Brome Pasture
 - East Traps Pasture
 - Two Section Pasture

- cow meadow
- former corral area
- all scenic views

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

According to the cultural landscape report, this parcel is located in the West Traps Pasture. This pasture contributes to the cultural landscape in its historic use of a cultivated area for hay, as a pasture for grazing livestock, and as the visual expanse of the prairie landscape (Bahr Vermeer Haecker Architects 2004).

Proposed Maintenance Parcel and Visitor Information and Orientation Area

According to the cultural landscape report, this parcel is located in the south and southeast sections of the Brome hayfield. This hayfield contributes to the cultural landscape in its historic use of a cultivated area for hay, as a pasture for grazing livestock, and as the visual expanse of the prairie landscape. Features that are currently present on, within, or near the parcel include a pole barn and stone fence. These cultural features are associated with possible former habitation sites and associations with ranching and fencing of hayfields (Bahr Vermeer Haecker Architects 2004).

Proposed Flint Hills Ranching Legacy Area Revision

According to the cultural landscape report, this parcel is located in the southern portion of the Brome hayfield. As mentioned in the “Historic Structures” section of this document, this parcel is associated with the corral area and historically (1907–1970) served as a local hub for

shipping cattle in and out of the region. Cultural landscape features include fencing; remnant spur grades; stockyard pens, corrals, and associated features; roads and road traces; quarry sites; and landscape features (Bahr Vermeer Haecker Architects 2002).

SOILS

Soils within the preserve tend to be excessively drained with rapid runoff on slopes that range from 30% to 50% (NPS 2000a). The soils on slopes and uplands within the preserve are typically shallow and rocky. Soils formed on alluvial deposits within the Fox Creek valley are deeper and more permeable.

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

The upland soil type within the parcel is Martin silty clay loam (USDA 2006). Martin silty clay loam formed on gentle slopes (2%–6%) (USDA 1974). It typically occurs on foot slopes below limestone outcrops. Available water capacity is high; water infiltrates rapidly and stored water is readily available to plants. Construction properties of this soil are considered poor for building foundations due to high shrink- swell potential and low shear strength (USDA 1974).

Proposed Maintenance Parcel and Visitor Information and Orientation Area

The upland soil types within this parcel are primarily Martin silty clay loam (approximately 4 acres) and Reading silt loam (approximately 2 acres). Martin silty clay loam occupies gentle slopes (2%–6%) (USDA 1974). It typically occurs on foot slopes below limestone outcrops. Available water capacity is high; water infiltrates rapidly and stored water is readily available to plants. Construction characteristics of this soil are considered poor for building foundations due to high shrink- swell potential and low shear strength (USDA 1974).

Reading silt loam occurs on broad, low terraces with a slope gradient of less than 1%, which slows runoff. Available water capacity is high; water infiltrates rapidly and stored water is readily available to plants. Construction characteristics for building foundations include medium to high shrink- swell potential (USDA 1974).

Proposed Flint Hills Ranching Legacy Area Revision

The upland soil type classified within this parcel is the Clime- Sogn complex with 3% to 20% slopes (USDA 1974). These soils are described as gently sloping to steep, moderately deep soils that overlay a subsoil of silty clay and shallow silty clay loams. The Clime- Sogn complex soils formed on broad areas on uplands of the region.

Clime soils are characterized by a silty clay surface layer underlain by very firm, calcareous, silty clay. Shale occurs at a depth of about 33 inches. Sogn soils are shallower to bedrock and

are coarser textured than Clime soils. Sogn soils are characterized by a silty clay loam surface layer about 6- inches thick. Subsurface layers consist of platy, massive limestone with few cracks or crevices. Available water capacity is low to moderate in Clime soils and low in Sogn soils. Runoff is rapid and erosion is a concern where vegetation cover is thin. There are no adverse features for low building foundations (USDA 1974).

PRIME AND UNIQUE FARMLANDS

In 1980, the Council on Environmental Quality directed federal agencies to assess the effects of their actions on farmland soils classified as prime or unique by the United States Department of Agriculture, Natural Resources Conservation Service (USDA, NRCS).

Prime farmland is defined by the USDA as:

... land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. Further, it could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0- 6 percent.

Unique farmland is defined as:

... land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree-grown nuts, olives, cranberries, fruit, and vegetables.

The State of Kansas has further identified farmland of statewide importance and defined it as:

... farmland, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crops. Generally, additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce as high a yield as prime farmlands if conditions are favorable. Additional farmlands of statewide importance may include tracts of land that have been designated for agriculture by state law.

Many of the soils common within Tallgrass Prairie National Preserve fit the criteria for prime farmlands and farmlands of statewide importance. Two soils so designated may be disturbed by the proposed construction of the visitor center, administrative, and maintenance facilities. Those that may be affected and that are considered prime farmland are Martin silty clay loam, 3% to 7% slopes, and Reading silt loam, rarely flooded. Those that may be affected and are considered farmland of statewide importance are the Clime- Sogn complex, 3% to 20% slopes. No areas or soils are considered unique farmlands within the preserve.

Soils form through the physical and chemical weathering of parent material. Physical soil properties are thus determined from the mineral composition of the parent material, climate under which the soil material has accumulated, biota associated with the soil environment, the corresponding topography, and the age or stage of development of the soil. Qualitative soil descriptions and specific quantitative data describing the physical properties of the aforementioned soils are provided in the soils section.

VEGETATION

The Tallgrass Prairie National Preserve occurs within the Prairie Parkland (Temperate) Province of Bailey (1995) and supports plant communities that comprise the Southeastern Great Plains Tallgrass Prairie Ecological System of NatureServe (2006). This ecological system encompasses the Flint Hills region of Kansas and its component native plant associations classified to date (NatureServe 2006) include:

- *Andropogon gerardii* – *Panicum virgatum* – *Helianthus grosseserratus* [Big Bluestem – Switchgrass – Sawtooth Sunflower] Herbaceous Vegetation
- *Andropogon gerardii* – *Sorghastrum nutans* – *Schizachyrium scoparium* [Big Bluestem – Yellow Indiangrass – Little Bluestem] Flint Hills Herbaceous Vegetation
- *Andropogon gerardii* – *Sorghastrum nutans* [Big Bluestem – Yellow Indiangrass] Unglaciated Herbaceous Vegetation
- *Andropogon gerardii* – *Schizachyrium scoparium* [Big Bluestem – Little Bluestem] Northern Plains Herbaceous Vegetation
- *Bouteloua curtipendula* – *Bouteloua (eriopoda, gracilis)* [Sideoats Grama (Black Grama, Blue Grama)] Herbaceous Vegetation
- *Juncus (acuminatus, brachycarpus)* – *Panicum virgatum* – *Bidens aristosa* – *Hibiscus moscheutos* ssp. *lasiocarpus* [Sharp- fruit Rush, Short- fruit Rush – Switchgrass – Tickseed Beggar- ticks – Swamp Rosemallow] Herbaceous Vegetation
- *Juniperus ashei* / *Bouteloua (curtipendula, hirsuta)* [Ashe Juniper / (Sideoats Grama, Hairy Grama)] Woodland

- *Muhlenbergia reverchonii* – *Croton monanthogynus* [Seep Muhly – Prairie- tea] Herbaceous Vegetation
- *Quercus macrocarpa* / *Andropogon gerardii* – *Panicum virgatum* [Bur Oak / Big Bluestem – Switchgrass] Woodland
- *Schizachyrium scoparium* – *Aristida dichotoma* – *Croton wildenowii* [Little Bluestem – Shinner’s Three- awn Grass – Elliptical Rushfoil] / Lichens Wooded Herbaceous Vegetation
- *Schizachyrium scoparium* – *Bothriochloa laguroides* ssp. *torreyana* – *Croton wildenowii* [Little Bluestem – Silver Beardgrass – Elliptical Rushfoil] Herbaceous Vegetation
- *Schizachyrium scoparium* – *Bouteloua curtipendula* – *Rudbeckia missouriensis* – *Mentzelia oligosperma* [Little Bluestem – Sideoats Grama – Missouri Coneflower – Few- Flower Stickleaf] Wooded Herbaceous Vegetation
- *Schizachyrium scoparium* – *Dichanthelium* spp. – *Buchnera americana* – *Echinacea pallida* [Little Bluestem – Witchgrass spp. – Bluehearts – Pale Purple Coneflower] Herbaceous Vegetation
- *Schizachyrium scoparium* – *Sorghastrum nutans* – *Andropogon ternarius* – *Coreopsis grandiflora* [Little Bluestem – Yellow Indiangrass – Silver Bluestem – Large- flowered Tickseed] Sandstone – Shale Herbaceous Vegetation
- *Schizachyrium scoparium* – *Sorghastrum nutans* – *Danthonia spicata* – *Silene regia* [Little Bluestem – Yellow Indiangrass – Poverty Oatgrass – Royal Catchfly] Chert Herbaceous Vegetation
- *Schizachyrium scoparium* – *Sorghastrum nutans* – *Tradescantia bracteata* [Little Bluestem – Yellow Indiangrass – Long- bract Spiderwort] Alkaline Bedrock Herbaceous Vegetation

The Flint Hills contain one of the largest relatively intact areas of native tallgrass prairie in the United States. The prairie remains intact here because rocky substrate is present close to the surface of the rolling topography, making it unsuitable for small- grain agriculture centered on plowing and tilling the landscape (NatureServe 2006). This tallgrass prairie community is often dense, includes a moderate- to- high density of forb species, and usually supports less than 10% cover of shrub and tree species (NatureServe 2006). More than 450 species of vascular plants have been identified within the Tallgrass Prairie National Preserve habitats (NPS 2004b). Fire and grazing constitute the major dynamic processes of the tallgrass prairie ecological system (NatureServe 2006).

Tallgrass prairie in general represents an ecosystem that was once widespread, covering more than 140 million acres of the east- central United States and adjacent southern Canada. Within North America, approximately 96% of all tallgrass prairie has been replaced by agriculture, urban development, and infrastructure within the short timeframe of approximately 150 years (Samson and Knopf 1994). Tallgrass prairie loss to human land uses within Kansas was estimated to be approximately 82.6%, but the loss may be as high as 99.9% in the states of Illinois, Indiana, Iowa, North Dakota, Wisconsin, and the Canadian province of Manitoba (Samson and Knopf 1994). This estimate of tallgrass prairie loss exceeds similar estimates prepared for other major ecosystems in North America.

AFFECTED ENVIRONMENT

The common native vegetation type within the preserve is tallgrass prairie classified under the *Andropogon gerardii* – (*Sorghastrum nutans*) [Big Bluestem – (Yellow Indiangrass)] Herbaceous Alliance (NatureServe 2006), which is comprised largely of the tall and mid- bunchgrasses big bluestem (*Andropogon gerardii*), yellow Indiangrass (*Sorghastrum nutans*), and little bluestem (*Schizachyrium scoparium*) (figure 7). In the Flint Hills, the common grass species are often associated with co- dominant grasses such as sideoats grama (*Bouteloua curtipendula*), switchgrass (*Panicum virgatum*), and sand dropseeds (*Sporobolus* spp.), in addition to forbs including white heath aster (*Symphyotrichum ericoides*), sawtooth sunflower (*Helianthus grosseserratus*), roundhead bush clover (*Lespedeza capitata*), goldenrods (*Solidago* spp.), and prairie violet (*Viola pedatifida*) (NatureServe 2006).



FIGURE 7. REPRESENTATIVE TALLGRASS PRAIRIE COMMUNITY OF THE PRESERVE

Two proposed parcels totaling approximately 13.0 acres would be used to support preserve visitor and maintenance facilities and infrastructure. This section describes the existing vegetation of each proposed parcel within the regional context of native tallgrass prairies, riparian communities, and lands developed over the past 150 years for agriculture, cities, farmsteads, and infrastructure.

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

This approximately 7.0- acre rectangular parcel consists primarily of grassland vegetation ranging from native tallgrass prairie to nonnative smooth brome (*Bromus inermis*). This parcel includes “go back” tallgrass prairie and areas of mixed native and nonnative prairie vegetation (figure 8). Trees occur as small stands and include nonnative Siberian elm (*Ulmus pumila*), and native American elm (*Ulmus americana*), common hackberry (*Celtis occidentalis*), and eastern cottonwood (*Populus deltoides*). Saplings include elm (*Ulmus* spp.), Osage orange (*Maclura pomifera*), and eastern red cedar (*Juniperus virginiana*). Most of the area has been disturbed historically (CLR 2004) and is currently grazed by cattle. The area has not been cultivated for many years and is regionally described as “go back” prairie (figure 9).



FIGURE 8. PHOTOGRAPH OF FOX CREEK TRIBUTARY WOODLANDS

To the south of the parcel is a tributary drainage, which supports a few eastern cottonwood trees of moderate age. The understory consists of mesic native grasses such as prairie cordgrass (*Spartina pectinata*) and native forbs. The north end of the parcel supports nonnative smooth brome (figure 10). The eastern boundary adjoins the right- of- way for SH 177. Vegetation of the highway right- of- way consists mostly of native species, as well as smooth brome and other introduced species, and is maintained by mowing and limited herbicide applications (figure 11).



FIGURE 9. REPRESENTATIVE VEGETATION DESCRIBED AS “GO BACK” PRAIRIE



FIGURE 10. PHOTOGRAPH OF SMOOTH BROME PASTURE (SITE OF 1930S RANCH STRUCTURES)



FIGURE 11. PHOTOGRAPH OF HIGHWAY RIGHT-OF-WAY VEGETATION

Proposed Maintenance Parcel and Visitor Information and Orientation Area

This approximately 6.0- acre parcel is highly disturbed. Most of the area is currently used for hay production. The vegetation consists mostly of perennial smooth brome. The western perimeter of this parcel adjoins lands disturbed by three sewage lagoons constructed by Strong City (figure 12). The northern section consists of more smooth brome hay meadow. The southern edge abuts a county gravel road with smooth brome as the common perennial grass cover in the right- of- way (figure 13). The eastern edge of the parcel is bordered by a wooded hillside that supports black walnut (*Juglans nigra*), bur oak (*Quercus macrocarpa*), common hackberry, green ash (*Fraxinus pennsylvanica*), and honey locust (*Gleditsia triacanthos*).

Proposed Flint Hills Ranching Legacy Area Revision

The upland vegetation on this parcel is tallgrass prairie that has been grazed by cattle, but not plowed. On a scale of 1 to 10, with 10 being the best possible example of virgin tallgrass prairie, the vegetation on this parcel was ranked a 6 or 7 by a prairie vegetation expert from the USFWS (NPS 2003c).



FIGURE 12. PARCEL OF DISTURBED LAND ADJOINING STRONG CITY SEWAGE LAGOONS



FIGURE 13. GRAVEL COUNTY ROAD WITH SMOOTH BROME IN RIGHT-OF-WAY

In the area of the Bottomland Trail is Fox Creek with associated terraces and floodplain habitats. Part of this area was previously planted with smooth brome, but is now being restored through introduction of native prairie species. The Fox Creek corridor supports a floodplain forest (ash- elm- hackberry- burr oak- black walnut community).

THREATENED AND ENDANGERED SPECIES

The USFWS was originally contacted by a letter of request dated June 27, 1997, to provide a list of threatened and endangered species that may occur within Tallgrass Prairie National Preserve. This list was to be used for populating the threatened and endangered species section of the 2000 GMP (September 2000). The USFWS responded with a letter dated July 11, 1997, identifying the Topeka shiner, which was a candidate for listing. The Topeka shiner was listed as endangered in December 1998 (NatureServe 2006).

The National Park Service prepared a biological assessment in conjunction with the aforementioned 2000 GMP (March 28, 2000). In that document, potential effects to the Topeka shiner and the bald eagle (*Haliaeetus leucocephalus*) were evaluated. The USFWS, in a letter dated April 5, 2000, concurred with the biological assessment determination of “no adverse effect” on the threatened bald eagle. The USFWS also concurred with the biological assessment to initiate future section 7 consultation for any activities that would potentially affect the Topeka shiner.

The USFWS was contacted by letter on March 15, 2006, regarding the intent of the National Park Service to prepare a site development plan and GMP revision for future facilities at Tallgrass Prairie National Preserve. The facilities would include a visitor information and orientation center near a small intermittent tributary stream to Fox Creek. This stream is documented as occupied habitat for the Topeka shiner. The USFWS responded by letter dated April 12, 2006, stating that direct impacts were not likely based on the current siting plan. However, they advised that the GMP revision process should evaluate whether indirect impacts from surface runoff and riparian corridor maintenance could impact the Topeka shiner or its habitat.

The USFWS Region 6 Mountain- Prairie Web site was also consulted for a list of threatened and endangered species currently listed within Chase County, Kansas (USFWS 2006). The list included the Topeka shiner, the Neosho madtom (*Noturus placidus*), and the bald eagle. Brief descriptions of these species and their ecology follows.

The Topeka shiner was formerly widespread in western tributaries of the Mississippi River from central Missouri to southern Minnesota, and west to southeastern South Dakota and western Kansas (Phillips et al. 1982). Topeka shiners have been extirpated in many localities; however, they are documented in six midwestern states including small areas in Kansas, Missouri, Iowa, Nebraska, South Dakota, and Minnesota. Most of the remaining populations are in Kansas (Cross and Collins 1995). Topeka shiners formerly inhabited all major drainages in Kansas, but are now restricted to primary Flint Hills headwater streams in the Neosho and Kansas River drainages (Kerns 1982, Tabor 1993, Minckley and Cross 1959, Cross 1967,

Schwilling 1981). They are locally common in some of these streams and are considered stable at many sites in the Cottonwood River and Mill Creek drainages.

The Topeka shiner is a 2- to 3- inch- long fish that typically inhabits quiet, open, permanent pools of small, clear, high- quality headwaters and creeks. These features drain upland prairie areas, including tiny spring- fed pools in headwater streams and larger streams (NatureServe 2006).

In Kansas streams, the Topeka shiner (figure 14) occupies the lower half of the water column (Kerns, unpublished data), although Tabor (1993) stated it occurs in mid- water and surface areas. A wide range of water temperatures is tolerated. Oxygen levels are generally near saturation. The water may range from clear to murky (from plankton blooms or suspended fine clay particles when the water is very warm). Occupied streams do not have a strong continuous flow; the flow is usually less than 5- cubic feet per second (Minckley and Cross 1959). The Topeka shiner is reported to breed in Kansas streams from late June through August (Cross 1967), and become sexually mature during their second summer—their normal life span does not exceed three years.

The federally endangered Neosho madtom occurs in lower reaches of the Cottonwood River of which Fox Creek is a tributary. Neosho madtoms have not been found in the preserve.

The Neosho madtom is a small freshwater catfish. It occupies large, medium- gradient streams with moderate to strong currents; usually in clear water under rocks in riffles with small, loosely packed gravel- pebble. Neosho madtoms occasionally are found in pools adjacent to riffles or near tree trunks in slack water downstream from riffles (Wenke et al. 1992).



FIGURE 14. TOPEKA SHINER

Loosely compacted gravel bars are important components of the habitat (Bulger and Edds 2001). Neosho madtoms feed on larval insects occurring in streambed crevices (Cross and Collins 1995). The range of the Neosho madtom includes the main stem of the Neosho River and its tributary streams (Cottonwood and Spring rivers) in eastern Kansas. It may also be found in eastern Oklahoma and southwestern Missouri; formerly occurring in the Grand (Neosho) and Illinois rivers in Oklahoma.

The federally threatened bald eagle ranges over large areas and is an occasional transient species in the Tallgrass Prairie National Preserve. There are no known nesting sites in the vicinity. The bald eagle is a large diurnal raptor that primarily feeds on fish, although it also forages on small mammals, carrion, birds, turtles, and snakes. Bald eagles are opportunistic and will steal food from other raptors, including other bald eagles (Ehrlich et al. 1988). Breeding habitat most commonly includes areas close to (within 2.5 miles) coastal areas, bays, rivers, lakes, or other bodies of water that reflect the general availability of primary food sources including fish, waterfowl, and seabirds (Andrew and Mosher 1982, Campbell et al. 1990). The bald eagle preferentially roosts in conifers, large deciduous trees, or other sheltered sites in winter; it typically selects the larger, more accessible trees (Buehler et al. 1991, 1992). The current range of the bald eagle includes all of the United States and much of Canada and is common in areas with extensive aquatic habitat.

The Kansas Natural Heritage Inventory monitors approximately 130 vertebrate and invertebrate species and approximately 400 plant species. Of the plant species known for the preserve, none are listed as Kansas threatened, endangered, or species in need of conservation (NPS 2000a).

Two plant species listed as federally threatened, e.g., western prairie fringed orchid (*Platanthera praeclara*) and Mead's milkweed (*Asclepias meadii*) occur in Kansas, but have not been observed within the preserve. Chase County is not within the known distribution of the western prairie fringed orchid or Mead's milkweed.

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

The federally endangered Topeka shiner has been confirmed to occur in two unnamed tributaries of Fox Creek and one unnamed tributary of the Cottonwood River, located on the west side of the preserve, including the intermittent tributary near this parcel.

Proposed Maintenance Parcel and Visitor Information and Orientation Area

No impacts to threatened, endangered, or candidate species or species of special concern are anticipated in this area.

Proposed Flint Hills Ranching Legacy Area Revision

No impacts to threatened, endangered, or candidate species or species of special concern are anticipated in this area.

WILDLIFE

Approximately 40 mammal species occur within preserve habitats. Larger mammals include white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), red fox

AFFECTED ENVIRONMENT

(*Vulpes vulpes*), beaver (*Castor canadensis*), and American badger (*Taxidea taxus*). Small mammals include the opossum (*Didelphis virginiana*), eastern cottontail (*Sylvilagus floridanus*), and woodchuck (*Marmota monax*), in addition to weasel, squirrel, pocket gopher, bat, mole, vole, shrew, and mice.

Up to 145 bird species use the habitats in and around Tallgrass Prairie National Preserve (NPS 2004c). Many birds are transient or are migratory residents. Some of the more notable species include the greater prairie chicken (*Tympanuchus cupido*) (figure 15), wild turkey (*Meleagris gallopavo*), great horned owl (*Bubo virginianus*), Henslow's sparrow (*Ammodramus henslowii*), and sandhill crane (*Grus canadensis*). There are also numerous waterfowl, sparrow, flycatcher, raptor, woodpecker, wren, and warbler species, among others.

A recently completed herpetofaunal inventory found 8 amphibian and 23 reptile species on the preserve. The amphibians include species of frogs, toads, and salamanders. The reptiles include many species of snakes, lizards, skinks, and turtles.

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

Many of the species previously discussed occur within the habitats of this parcel, either permanently, or during migration, or during foraging activities.



FIGURE 15. GREATER PRAIRIE CHICKEN

Proposed Maintenance Parcel and Visitor Information and Orientation Area

Many of the species previously discussed occur within the habitats of this parcel, either permanently, during migration, or during foraging activities.

Proposed Flint Hills Ranching Legacy Area Revision

Many of the species previously discussed occur within the habitats of this parcel, either permanently, during migration, or during foraging activities.

VISITOR EXPERIENCE AND APPRECIATION

Tallgrass Prairie National Preserve is open year-round. Visitation tends to be highest during the months of May, June, and October. The preserve currently averages between 18,000 and

19,000 visitors per year. Visitation is expected to increase once a visitor center for the preserve opens, providing enhanced regional visibility. Estimates of how much visitation might increase vary. The NPS Office of Construction and Program Management assumed that visitation would increase to 25,000 persons per year when projecting facility space needs for this study. However, a study conducted in 1999 projected that visitation could reach as high as 100,000 to 125,000 persons per year (BRW 1999). Typically, visitors tend to stay at the preserve an average of 1.5 hours, although length of stay could increase once the visitor center opens and additional visitor opportunities become available.

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

One of the main visitor opportunities currently available at the preserve is the daily tours of the ranch house and environs. During periods of high visitation, the ranch house tends to be crowded and noisy due to the mix of functions and uses of the structure. This situation affects visitor experience and hinders the services that National Park Service, The Nature Conservancy, and Kansas Park Trust staff are able to provide. Similarly, the presence of buses, equipment, and NPS vehicles stored in ranch outbuildings detracts from the historic ambiance of the ranch complex.

In addition to ranch house and ranch headquarters tours, the preserve offers prairie bus tours (offered three times daily from May to October), living history programs at the ranch on weekends during summer months, visits to the one- room school house (open weekend afternoons in May, June, September, and October), and hiking along preserve trails.

There are four trails originating from the historic Spring Hill / Z Bar Ranch Headquarters. The Southwind Nature Trail winds its way from the ranch house, through the prairie to the Lower Fox Creek school house (located about 0.5 mile to the north) and back. The Scenic Overlook Trail heads west from the ranch headquarters for approximately 6.5 miles into the heart of the prairie. The Three Pasture Loop Trail is approximately 3.8 miles long, heads west from the historic Spring Hill / Z Bar Ranch Headquarters, turns south, and then circles back to the point of origin. The Red House Trail (approximately 6.0 miles) follows the Three Pasture Loop Trail and includes an additional loop at the southwest preserve boundary.

Several preserve facilities or visitor opportunities are partially accessible to those using wheelchairs. The main floor of the ranch house and barn, where visitor services are currently provided, are wheelchair accessible via the use of removable ramps. Wheelchair accessible parking is available north of the barn. The prairie tours use a bus equipped to accommodate wheelchairs, and the Bottomland Trail is wheelchair accessible. The current administrative offices in Cottonwood Falls are also wheelchair accessible.

Proposed Maintenance Parcel and Visitor Information and Orientation Area

This area would not be open to visitor use; however, it is adjacent to the day use area. The GMP revision anticipates that there will eventually be dispersed day use opportunities such as hiking, horseback riding, and fishing in certain areas east of the Fox Creek bottomlands.

Proposed Flint Hills Ranching Legacy Area Revision

The Bottomland Trail traverses land being restored to bottomland (riparian) prairie near Fox Creek, and interprets both natural and cultural history. The trailhead for the Bottomland Trail is located on the north side of CR 227, with a small parking area on the side of the county road.

SCENIC QUALITY

Scenic quality (integrity of scenic vistas) has been identified as one of the preserve's most important resources (NPS 2000a). The 2000 GMP identifies several vistas as noteworthy because they are representative of the larger, nearly undeveloped and sparsely populated Flint Hills landscape. Part I of the cultural landscape report for the preserve (NPS 2000b) identifies these same key views. Certain vistas are relevant to discussions of potential impacts on scenic quality.

Traveling north on SH 177 from U.S. 50, the preserve flanks the highway on both sides revealing a rural, hilly, minimally developed landscape. The only readily apparent human-constructed feature north of St. Anthony Cemetery is the historic Spring Hill / Z Bar Ranch Headquarters, school house, and fences.

Similarly, from the ranch complex (or from the north/south ridge in the center of the preserve) looking south, there are few human intrusions on the Flint Hills landscape. Depending on the season, a rolling sea of green or brown expands nearly to the horizon. In the distance, near the horizon, one can make out a few human-made features: St. Anthony Cemetery, a gas compressor station, a large elevated tank, and a grain silo on the mesa-like plateau west of SH 177.

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

This parcel is visible along SH 177 within 0.5 mile of the site. This parcel is also visible from the bottomland area and the bluffs to the east, and elevated prairie to the west. This location is not visible from the west or east beyond 1.0 mile or from the north and south beyond 0.5. Views from this parcel are as follows:

- toward the north: historic Spring Hill / Z Bar Ranch Headquarters
- toward the east: SH 177 and bottomland prairie in the foreground, bottomland forest in the middle ground, and bluff and prairie in the background
- toward the west: tallgrass prairie
- toward the south: tallgrass prairie; SH 177, St. Anthony Cemetery, and grain silo

Proposed Maintenance Parcel and Visitor Information and Orientation Area

Views to this parcel from vantage points within the preserve are well screened by trees and bluffs. Views from this parcel are as follows:

- toward the north: short views of the terrace slope, bluffs, and woods
- toward the east: short views of woods and rural residential development
- toward the west: Strong City sewage lagoons; Fox Creek and bottomland forest in the middle- and foreground; east- facing slope with outbuildings, corrals, and silo in the background
- toward the south: Strong City, CR 227, and U.S. 50 and highway traffic in the background

Proposed Flint Hills Ranching Legacy Area Revision

This parcel is over 2.0 miles from the historic Spring Hill / Z Bar Ranch Headquarters, and in its undeveloped state it is difficult to identify from the distant ranch. Much of the site is hidden by intervening topography. This parcel is in an area where other human- caused features (e.g., St. Anthony Cemetery, the grain silo, and U.S. 50) are barely visible near the horizon. The presence of these features would help new facilities blend into the surrounding landscape. This parcel is fairly visible from Bottomland Trail. Views from this parcel are as follows:

- toward the north: St. Anthony Cemetery in the foreground, tallgrass prairie in the middle ground, tallgrass prairie and historic Spring Hill / Z Bar Ranch Headquarters in the background
- toward the east: bottomland prairie (and Bottomland Trail) in the foreground, bottomland forest in the middle and background
- toward the west: KDOT highway materials site in the foreground; SH 177 in the middle ground; east- facing slope with outbuildings, corrals, and silo in the background
- toward the south: KDOT highway materials site in the fore and middle ground, and U.S. 50 and highway traffic in the background

WATER QUALITY

The principal aquatic resources within the preserve are Palmer Creek and Fox Creek. Palmer Creek is a tributary to Fox Creek and flows west to east in the northern portion of the preserve. Fox Creek, which bisects the preserve and flows north to south, is a major tributary

to the Cottonwood River. There are additional unnamed tributaries that discharge into Fox Creek. The floodplains associated with Palmer and Fox creeks have been delineated and digitized from the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (NPS 2000a).

Three assessments have been conducted on aquatic resources within the preserve. A monitoring program was initiated by the Kansas Department of Health and Environment sampling Fox and Palmer creeks beginning in 1998. Sample analysis determined a high fecal coliform count in Palmer and Fox creeks, a possible result of nonpoint source runoff from heavily grazed pastures. Prior to 1998, a water quality test on stream health for Fox Creek rated the water quality as “poor” due to an increase in species tolerant to pollution and a decrease in intolerant species (NPS 2000a). A recent evaluation of three drainage segments of Palmer Creek concluded that a western segment of Palmer Creek was functioning, an eastern segment of Palmer Creek was nonfunctioning, and an unnamed tributary to Fox Creek was functional-at-risk due to incising at its lower end. Other condition assessments for this area were rated as notable for their excellence and additional information regarding these assessments can be found in the 2000 GMP.

The Kansas Department of Health and Environment is authorized to implement the U.S. Environmental Protection Agency NPDES stormwater program. This program requires that proponents of any construction activity that disturbs more than 1.0 acre of land must file a NPDES permit application for stormwater runoff. The proponent must obtain authorization from the Kansas State Department of Health and Environment to discharge stormwater runoff associated with construction activities prior to commencing construction; therefore, a NPDES permit application would be filed and approved prior to construction.

The NPDES permit process also requires preparation of a stormwater pollution prevention plan. This plan would provide guidance for prevention, minimization, and mitigation of soil erosion and water pollution during construction activities. In the case of the proposed NPS facilities, the construction contractor would be responsible for developing a NPS- approved plan. The plan would be available for public and agency inspection at the construction site. The NPDES permit and the stormwater pollution prevention plan measures would help minimize potential adverse impacts to water resources resulting from construction activities.

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

Potential water quality effects to Fox Creek via the intermittent tributary during construction include sedimentation, spills of fuel or lubricants from construction equipment, and increased runoff from impervious surfaces.

Proposed Maintenance Parcel and Visitor Information and Orientation Area

This parcel is located approximately 0.3 mile east of Fox Creek, less than 0.5 mile north of an unnamed tributary and due east of the sewage lagoons. Water quality effects to Fox Creek due to proposed construction at this site are not expected.

Proposed Flint Hills Ranching Legacy Area Revision

The major aquatic resource near the alternative sites proposed for constructing new facilities is Fox Creek. Water quality concerns of the proposed action relate to the potential impact of construction activities on the water quality of Fox Creek.

FLOODPLAINS

Executive Order 11988 (*Floodplain Management*) requires federal agencies to avoid construction within the 100- year floodplain unless no other practicable alternative exists. National Park Service Director's Order – 77- 2: *Floodplain Management* (NPS 2003a) provides additional guidance for implementing Executive Order 11988:

Class I includes the location or construction of administrative, residential, warehouse and maintenance buildings . . . which by their nature entice or require individuals to occupy the site, are prone to flood damage, or result in impacts to natural floodplain values. Actions in this class are subject to the floodplain policies and procedures if they lie within the 100- year regulatory floodplain. Class II actions include 'critical actions'—those activities for which even a slight chance of flooding would be too great. Examples of critical actions include schools, hospitals, fuel storage facilities, irreplaceable records, museums, and storage of archeological artifacts. Actions in this class are subject to the floodplain policies and procedures if they lie within the 500- year regulatory floodplain.

Furthermore,

If a proposed action is found to be in an applicable regulatory floodplain and relocating the action to a nonfloodplain site is considered not to be a viable alternative, then flood conditions and associated hazards must be quantified as a basis for management decision making and a formal Statement of Findings must be prepared.

Proposed Visitor Center / Administration Parcel and Visitor Information and Orientation Area

Class I functions would be located outside the 100- year floodplain; therefore, no statement of findings for class I actions would be required or would be prepared.

Once a preferred site for the new facilities is approved, and before planning and design of the new facilities proceeds, a qualified hydrologist would conduct a site visit to delineate the 100- year floodplain. This would ensure that facilities are placed and protected according to NPS floodplain guidelines during the design phase.

Proposed Maintenance Parcel and Visitor Information and Orientation Area

A portion of the parcel proposed for the maintenance facility is located within the 100- year floodplain of Fox Creek (FEMA Flood Insurance Rate Map 200040- 0005B, 1990). The construction of the sewage lagoon may have altered the floodplain. All proposed facilities (class I actions) would be located outside the 100- year floodplain. Hazardous materials storage areas and storage/display of curatorial items are class II actions and must be outside of or protected from the 500- year floodplain. The 500- year floodplain is not shown on the previously cited FEMA map. The 100- year and 500- year floodplains would be delineated by a qualified hydrologist in the area for the maintenance facilities.

Because class I and class II functions (hazardous materials storage and storage/display of curatorial items) would be located outside the 100- year and 500- year floodplain, respectively, no statement of findings for class I or class II actions would be required or would be prepared.

Proposed Flint Hills Ranching Legacy Area Revision

The no- action alternative site is located outside the 100- year floodplains of Fox Creek and the Cottonwood River (FEMA Flood Insurance Rate Map No. 200040- 0005B, 1990).

Hazardous materials storage areas and storage/display of curatorial items are class II actions and require location outside of or protection from the 500- year flood. The 500- year floodplain is not shown on the FEMA map; however, the topography of the site indicates that it is possible to locate all facilities above the 100- year floodplain and it should also be reasonable to locate these facilities outside of the 500- year floodplain (NPS, Smilie 2003c). Because class II functions (hazardous materials storage and storage/display of curatorial items) would be located outside the 500- year floodplain, no statement of findings for class II actions would be required or would be prepared.

Once a preferred site for the new facilities is approved, and before planning and design of the new facilities proceeds, a site visit by a qualified hydrologist would be conducted to delineate 100- and 500- year floodplains in order to ensure that construction of facilities takes place outside of floodplains.

PRESERVE NATIONAL PARK SERVICE OPERATIONS

Operations at Tallgrass Prairie National Preserve are currently split between Cottonwood Falls and the historic Spring Hill / Z Bar Ranch Headquarters, which is located about 5 miles to the north. Offices of the superintendent, administrative staff, The Nature Conservancy staff, and division chiefs (natural resources, facility maintenance, and administration) are located at Cottonwood Falls. The interpretive division chief and rangers, maintenance and natural resources management staff, and the Kansas Park Trust staff work out of the ranch headquarters complex.